

09/913,780
Page 4

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) A flat bed platesetter system for imaging radiant energy onto a printing plate, the system comprising:

(a) a supporting bed;

(ab) drive means for moving-sliding the printing plate on the support bed in a direction of movement ~~over stationary supporting elements~~; and

(bc) an optical head being movably mounted on a stationary bridge, adapted to move across the direction of movement of the printing plate and being provided for emitting radiant energy onto the printing plate.

2-46 (previously cancelled by preliminary amendment).

47. (Currently amended) A flat bed platesetter system for imaging radiant energy onto a printing plate, the system comprising:

(a) a supporting bed;

(b) a carriage for moving-sliding the printing plate on the supporting bed in a direction of movement ~~over stationary supporting elements~~; and

(b) an optical head movably mounted on a stationary bridge and adapted to move across the direction of movement of the printing plate, wherein the optical head comprises emitters for emitting radiant energy onto the printing plate.

48. (Cancelled) ~~A flat bed platesetter system for imaging radiant energy onto a printing plate, the system comprising:~~

~~(a) an optical head movably mounted on a stationary bridge and adapted to move across a direction of movement of the printing plate; and~~

~~(b) a radiant energy emitting source provided at or in the optical head emitting radiant energy onto the printing plate.~~

09/913,780

Page 5

49. (Previously added) A flat bed platesetter system for imaging radiant energy onto a printing plate, the system comprising:
- (a) a supporting bed;
 - (b) a carriage for moving sliding the printing plate in a direction of movement on the supporting bed;
 - (b) wherein the support for supporting the flat bed platesetter system is disposed in a downwardly inclined manner with respect to the direction of movement of the printing plate; and
 - (c) an optional storing and delivery system for a plurality of printing plates having a support and delivery area which is downwardly inclined or inclinable to feed a printing plate by gravitational force onto a support area of the flat bed platesetter.
50. (Currently amended) A flat bed platesetter system for successively imaging radiant energy onto a plurality of printing plates, the system comprising:
- (a) a supporting bed;
 - (b) a carriage for moving sliding a first one of the printing plurality of plates in a direction of movement on the support bed;
 - (b) an optical head movably mounted on a stationary bridge, adapted to move across the direction of movement of the first one of the plurality of printing plates, wherein the optical head comprises emitters for emitting radiant energy onto the first one of the plurality of printing plates; and
 - (ed) printing plate positioning means for bringing the first one of the plurality of printing plates into a defined position onto an support area of the support bed prior to imaging, wherein a first positioning element is provided at a first lateral side, second and third positioning elements are provided at the opposite second lateral side, and at least a fourth positioning element is provided at a downstream end of the support area; and

09/913,780
Page 6

(e) a collapsible stop disposed in a path of movement of the first one of the plurality of printing plates in the direction of movement,
the supporting bed, carriage, optical head, positioning means and stop configured to drive the first one of the plurality of printing plates to an imaging zone while a second one of the plurality of printing plates is being positioned by the positioning means.

51. (Currently amended) A flat bed platesetter system for imaging radiant energy onto a printing plate, the system comprising:

- (a) a support ~~bed area movably~~ directly supporting the printing plate in a direction of movement;
- (b) an optical head movably mounted on a stationary bridge and adapted to move across the direction of movement of the printing plate, wherein the optical head comprises emitters for emitting radiant energy onto the printing plate; and
- (c) a drive assembly comprising:
- (i) a carriage member for ~~carrying~~ sliding the printing plate on the support bed,
 - (ii) an electric linear motor driving the carriage member, and
 - (iii) an encoding system for defining the position of the printing plate along its path of movement relative to the support bed.

52. (Currently amended) The flat bed platesetter system of claim 51, wherein the carriage member is provided in a center position of a stationary support bed area supporting the printing plate.

53. (Currently amended) A flat bed platesetter system for imaging radiant energy on a printing plate, the system comprising:

- (a) a support bed;
- (b) an optical head movably mounted on a stationary bridge and adapted to move across a direction of movement of the printing plate; and

09/913,780
Page 7

(b) a carriage for ~~moving~~ sliding the printing plate in the direction of movement on the supporting bed, wherein the carriage comprises at least one radiation intensity detector.

54. (Previously added) The system of claim 47, further comprising bearing means for ~~movably~~ slidably supporting the printing plate in the direction of movement.

55. (Previously added) The system of claim 47, wherein the printing plate comprises a thermosensitive or photosensitive material.

56. (Previously amended) The system of claim 47, wherein the head comprises a spatial modulator illuminated by at least one of the emitters and an optic forming the image of the modulator onto the printing plate.

57. (Previously added) The system of claim 56, wherein the at least one emitter is a laser emitter.

58. (Previously added) The system of claim 47, wherein the carriage includes a longitudinally moving element of a linear motor.

59. (Previously added) The system of claim 47, wherein the carriage is supportingly guided by at least one element.

60. (Currently amended) The system of claim 47, wherein the carriage comprises at least one vacuum gripper holding the printing plate at the level of the support bed.

61. (Previously added) The system of claim 47, wherein the carriage comprises a carriage member located in the middle of the width of the flat bed.

62. (Previously added) The system of claim 47, wherein the system is inclined in the direction of movement of the printing plate.

63. (Currently amended) The system of claim 47, further comprising printing plate positioning means for bringing the printing plate into a defined and centered position on the support bed prior to imaging.

64. (Currently amended) The system of claim 63, wherein the support bed is disposed in an inclined manner, and the printing plate positioning means comprise at least one

09/913,780
Page*8

positioning element provided respectively laterally of the inclined support area-bed and at least one positioning element provided at a downstream end of the support areabed where the printing plate can stop its downward slide.

65. (Previously added) The system of claim 64, wherein a first positioning element is provided at a first lateral side, second and third positioning elements are provided at a second lateral side, and a fourth positioning element is provided at the downstream end of the support area.
66. (Previously added) The system of claim 64, wherein at least one of the positioning elements is movable.
67. (Previously added) The system of claim 61, further comprising an encoding system for properly defining the position of the carriage member along its path of movement.
68. (Currently amended) The system of claim 47, further comprising printing plate squaring means to position the plate at a defined longitudinal position on the support bed prior to imaging.
69. (Previously added) The system of claim 68, in which the squaring means comprises two movable elements.
70. (Previously added) The system of claim 68, in which the plate is firmly abutted against a plurality of positioning elements by a friction pushing mechanism.
71. (Currently amended) The system of claim 47, in which a plurality of low-friction elements are arranged to form a supporting bed surface extending the length of the platesetter.
72. (Currently amended) The system of claim 49, wherein the support comprises a supporting surface divided into a loading zone aligned in the direction of movement to receive plates to be imaged, an imaging zone where plates are subjected to radiant energy and imaged, and an ejection zone to receive the imaged plates.

09/913,780
Page 9

- D!*
(continued)
73. (Previously added) The system of claim 72, wherein the loading zone comprises arrays of parallel, longitudinally aligned roller-bearing channels to receive and support plates.
74. (Previously added) The system of claim 73, in which the array is disposed on each side of the path of the carriage.
75. (Previously added) The system of claim 73, in which one of the roller-bearing channels is movable.
76. (Currently amended) The system of claim 72, in which the supporting-imaging zone includes a plurality of rows of bearings inserted in solid plates.
77. (Previously added) The system of claim 76, in which a plurality of rows of pressure bearings maintain the plate against rows of precision bearings.
78. (Previously added) The system of claim 77, wherein the pressure bearings are offset in relation to corresponding precision bearings to firmly maintain the plate in the focal plane of an imaging lens.
79. (Previously added) The system of claim 47, wherein the carrier-carriage is provided with a radiation intensity detector.
80. (Previously added) The system of claim 47, wherein the carrier-carriage is provided with a detector at its front end to detect the presence of a plate in relation to a track.
81. (Previously added) The system of claim 47, wherein the carrier-carriage comprises a detector at its tail end to detect the presence of a plate in relation to a track on the carrier return trip.
82. (Currently amended) The system of claim 51, wherein the carrier-carriage has a base located under a supporting bed with sliding elements and a protruding section carrying suction cups and disposing the suction cups at the level of the supporting plate area.
83. (Previously added) The system of claim 47, wherein the optical head is located in a container, and a lens, an edge detector, roller bearings, a moving part of a linear

09/913,780
Page 10

motor, an encoder and connectors are all located on a first side of at least one supporting rail, and all connecting conduits are located on a second side of the rail to balance the weight of the optical head.

84. (Previously presented) The system of claim 83, wherein the carriage is attached to the linear motor at the center of gravity of the carriage.

85. (Allowed) A system for imaging radiant energy onto a printing plate, the system comprising:

(a) at least two flat bed platesetter systems comprising:

- (i) a carriage for moving the printing plate in a direction of movement over stationary supporting elements, and
- (ii) an optical head movably mounted on a stationary bridge and adapted to move across the direction of movement of the printing plate, wherein the optical head comprises emitters for emitting radiant energy onto the printing plate; and

(b) a transport assembly including a feed chain, an exit chain and at least two branch chains located between the feed chain and the exit chain, wherein each of the flat bed platesetter systems is located in one of the branch chains.

86. (Allowed) The system of claim 85, wherein the transport assembly further comprises at least one additional component selected from the group consisting of a loader, a stripper, a plate processor, a bender, a stocker or combinations thereof.

87. (Currently amended) A method for imaging a printing plate with radiant energy in a flat bed platesetter, the method comprising:

(a) providing a flat bed platesetter having a support area, wherein the platesetter comprises:

- (i) a support bed,
- (ii) a carriage for moving/sliding the printing plate in a direction of movement over stationary supporting elements on the support bed, and

09/913,780
Page 11

- (ii) an optical head movably mounted on a stationary bridge and adapted to move across the direction of movement of the printing plate, wherein the optical head comprises emitters for emitting radiant energy onto the printing plate;
- (b) providing a printing plate on ~~a support area~~ the support bed of the flat bed platesetter;
- (c) positioning the printing plate on the support ~~area~~ bed;
- (d) moving the printing plate in a first direction; and
- (e) moving a radiant energy emitting head in a second direction substantially perpendicular to the first direction to provide an image on the printing plate.
-